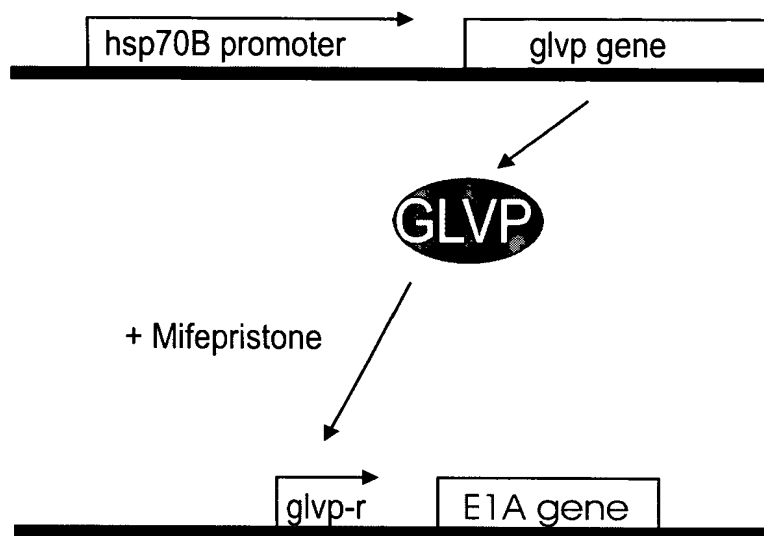


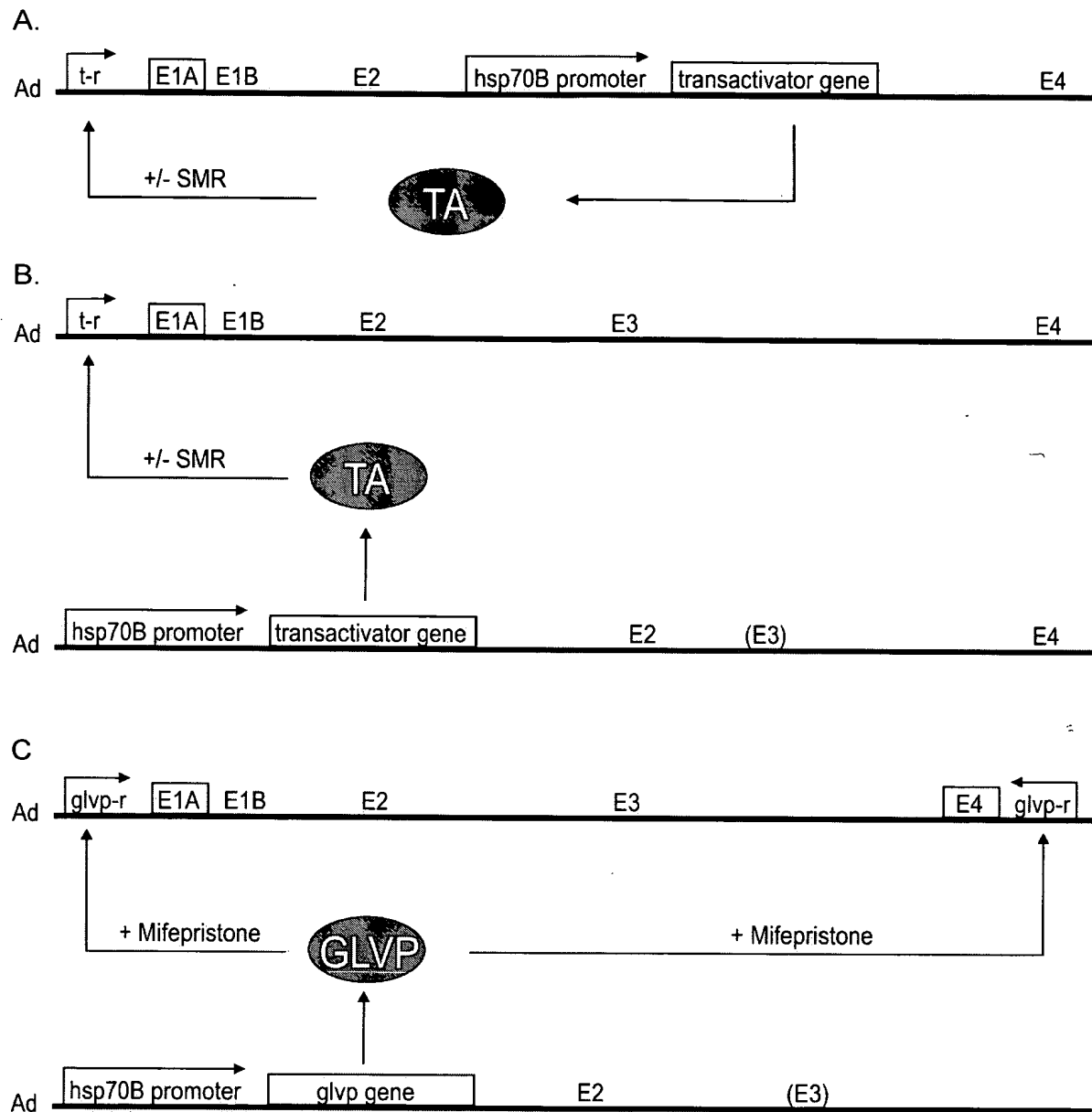
TA - transactivator protein  
t-r - transactivator-responsive promoter  
SMR - small molecule regulator

Fig. 1



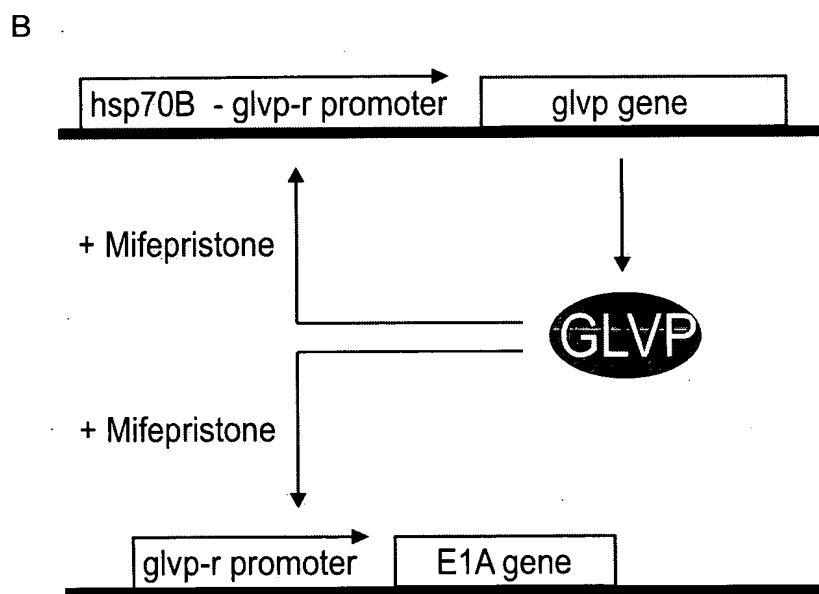
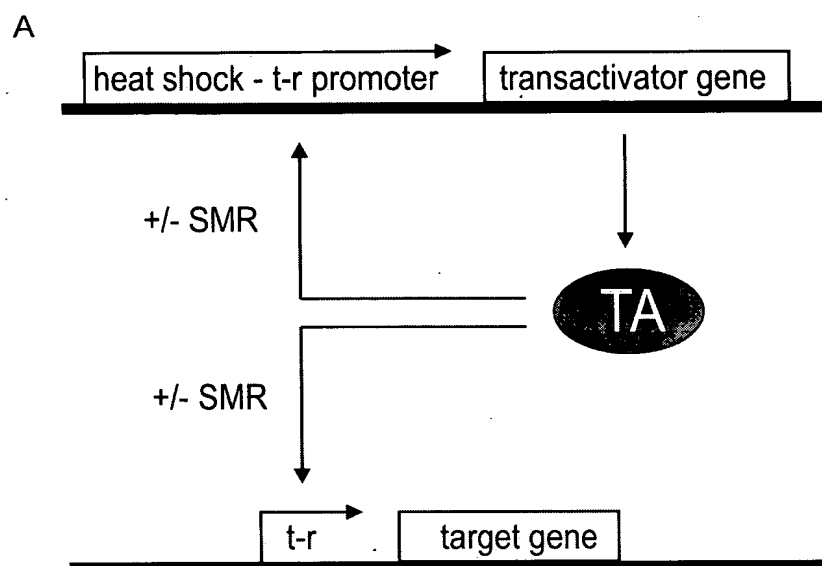
glvp-r - GLVP-responsive promoter

Fig. 2



glvp-r - GLVP-responsive promoter  
 t-r - transactivator-responsive promoter  
 SMR - small molecule regulator  
 TA - transactivator protein  
 Ad - adenovirus DNA  
 ( ) - gene region from which sequences can be optionally deleted

Fig. 3



glvp-r - GLVP-responsive promoter

t-r - transactivator-responsive promoter

SMR - small molecule regulator

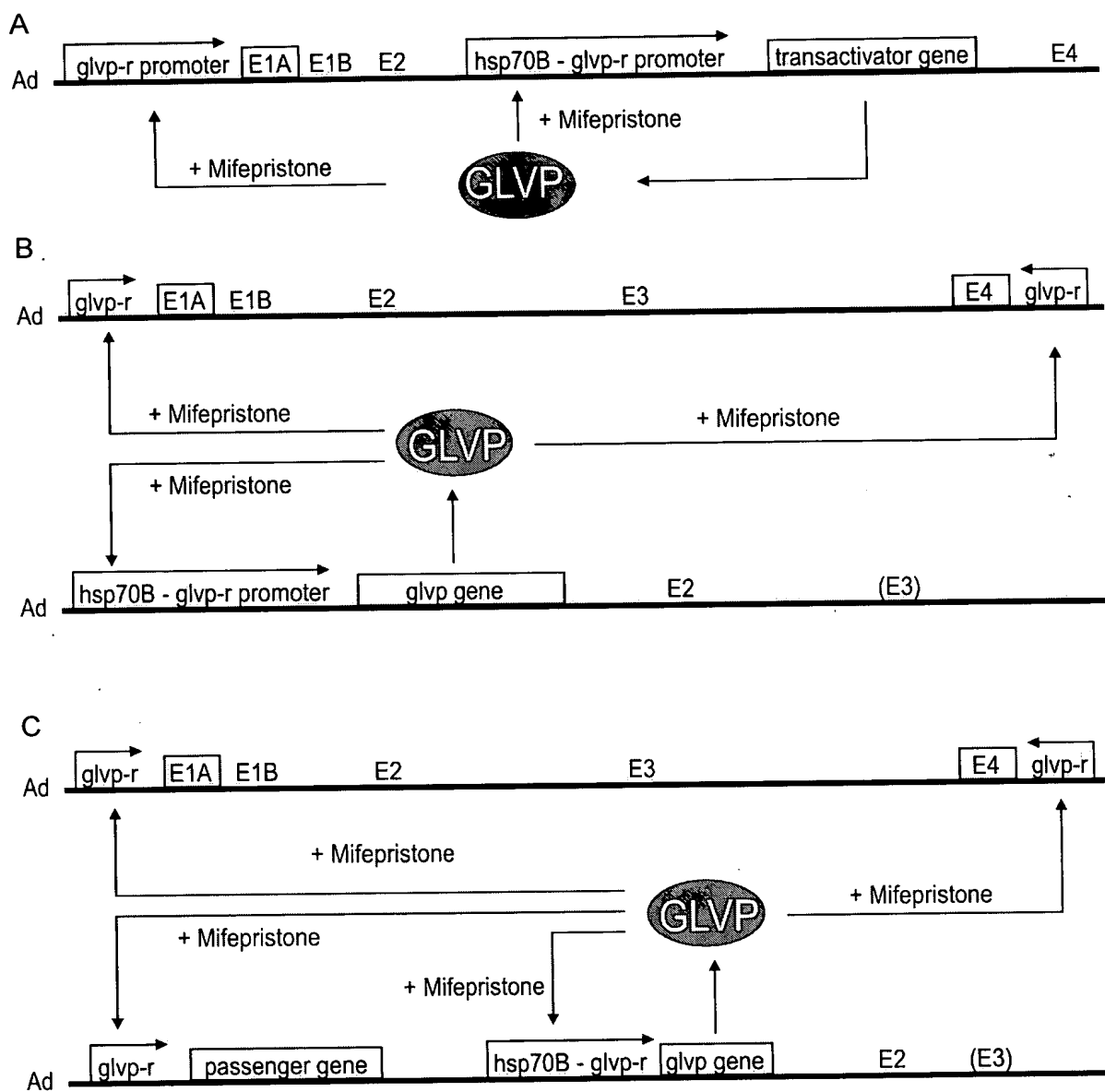
TA - transactivator protein

hsp70B - glvp-r promoter

heat shock - t-r promoter

- tandem or hybrid promoters

Fig. 4



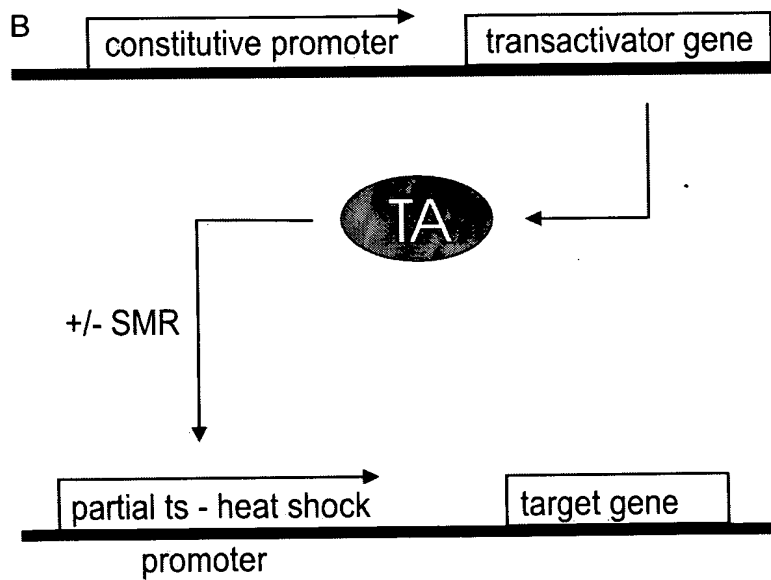
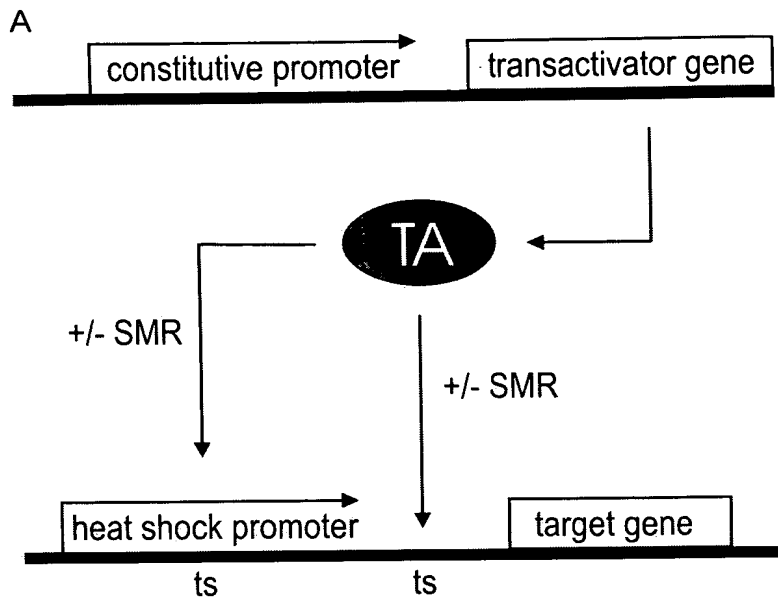
glvp-r - GLVP-responsive promoter

Ad - adenovirus DNA

( ) - gene region from which sequences can be optionally deleted

hsp70B - glvp-r promoter - tandem or hybrid promoters

Fig. 5



ts - transactivator - binding site

SMR - small molecule regulator

TA - transactivator protein

partial ts - heat shock promoter - hybrid promoter co-activated by TA and endogenous HSF

Fig. 6

Fig.7

&gt;pShuttle 6621bp

CATCATCAATAATATACCTTATTTTTGGATTGAAGCCAATATGATAATGAGGGGGTGGAGTTTGTGACGTGG  
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Fig. 7 Continued

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Fig. 8

&gt;pGene/V5-His 7698bp

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Fig. 8 Continued

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Fig. 8 Continued

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Fig. 9

&gt;pXC1 9905bp

CCCTTCCAGCTCTCTGCCCTTTTGGATTGAAGCCAATATGATAATGAGGGGGTGGAGTTTGTGACGTGGC  
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CATGTAAGCGACGGATGTGGCAAAAGTGACGTTTTTGGTGTGCGCCGGTGTACACAGGAAGTGACAATTTT  
CGCGCGGTTTTAGGCGGATGTTGTAGTAAATTTGGGCGTAACCGAGTAAGATTTGGCCATTTTCGCGGGAA  
AACTGAATAAGAGGAAGTGAAATCTGAATAATTTTGTGTTACTCATAGCGCGTAATATTTGTCTAGGGCCG  
CGGGGACTTTGACCGTTTACGTGGAGACTCGCCCAGGTGTTTTTCTCAGGTGTTTTCCGCGTTCCGGGTCA  
AAGTTGGCGTTTTATTATTATAGTCAGCTGACGTGTAGTGTATTTATACCCGGTGAGTTCCTCAAGAGGCC  
ACTCTTGAGTGCCAGCGAGTAGAGTTTTCTCCTCCGAGCCGCTCCGACACCGGGACTGAAAATGAGACATA  
TTATCTGCCACGGAGGTGTTATTACCGAAGAAATGGCCGCCAGTCTTTTGGACCAGCTGATCGAAGAGGTA  
CTGGCTGATAATCTTCCACCTCCTAGCCATTTTGAACCACCTACCCTTCACGAACGTGATGATTTAGACGT  
GACGGCCCCCGAAGATCCCAACGAGGAGGCGGTTTCGCAGATTTTTCCCGACTCTGTAATGTTGGCGGTGC  
AGGAAGGGATTGACTTACTCACTTTTCCGCCGGCGCCCGGTTCTCCGGAGCCGCTCACCTTTCCCGGCAG  
CCCGAGCAGCCGGAGCAGAGAGCCTTGGGTCCGTTTCTATGCCAAACCTTGTACCGGAGGTGATCGATCT  
TACCTGCCACGAGGCTGGCTTTCCACCCAGTGACGACGAGGATGAAGAGGGTGAGGAGTTTGTGTTAGATT  
ATGTGGAGCACCCCGGGCACGGTTGCAGGTCTTGTCAATTATCACCGGAGGAATACGGGGGACCCAGATATT  
ATGTGTTGCTTTGCTATATGAGGACCTGTGGCATGTTTGTCTACAGTAAGTGAAAATTATGGGCAGTGGG  
TGATAGAGTGGTGGGTTTTGGTGTGGTAATTTTTTTTTTAAATTTTACAGTTTTGTGGTTTAAAGAATTTTG  
TATTGTGATTTTTTTTAAAGGTCCTGTGTCTGAACCTGAGCCTGAGCCGAGCCAGAACCGGAGCCTGCAA  
GACCTACCCGCCGTCTAAATGGCGCCTGCTATCCTGAGACGCCCGACATCACCTGTGTCTAGAGAATGC  
AATAGTAGTACGGATAGCTGTGACTCCGGTCCTTCTAACACACCTCCTGAGATACACCCGGTGGTCCCGCT  
GTGCCCCATTAAACCAGTTGCCGTGAGAGTTGGTGGGCGTCGCCAGGCTGTGGAATGTATCGAGGACTTGC  
TTAACGAGCCTGGGCAACCTTTGGACTTGAGCTGTAAACGCCCCAGGCCATAAGGTGTAAACCTGTGATTG  
CGTGTGTGGTTAACGCCTTTGTTTGCTGAATGAGTTGATGTAAGTTTAAATAAAGGGTGAGATAATGTTTAA  
CTTGCAATGGCGTGTTAAATGGGGCGGGGCTTAAAGGGTATATAATGCGCCGTGGGCTAATCTTGTTACAT  
CTGACCTCATGGAGGCTTGGGAGTGTTTGGAAAGATTTTTCTGCTGTGCGTAACCTTGCTGGAACAGAGCTCT  
AACAGTACCTCTTGGTTTTGGAGGTTTCTGTGGGGCTCATCCCAGGCAAAGTTAGTCTGCAGAATTAAGGA  
GGATTACAAGTGGGAATTTGAAGAGCTTTTGAATCCTGTGGTGAGCTGTTTGATTCTTTGAATCTGGGTC  
ACCAGGCGCTTTTCCAAGAGAAGGTCATCAAGACTTTGGATTTTTCCACACCGGGGCGCGCTGCGGCTGCT  
GTTGCTTTTTTTGAGTTTTATAAAGGATAAATGGAGCGAAGAAACCCATCTGAGCGGGGGGTACCTGCTGGA  
TTTTCTGGCCATGCATCTGTGGAGAGCGGTTGTGAGACACAAGAATCGCCTGCTACTGTTGTCTTCCGTCC  
GCCCCGGCGATAATACCGACGGAGGAGCAGCAGCAGCAGCAGGAGGAAGCCAGGCGGGCGGCAGGAGCAG  
AGCCCATGGAACCCGAGAGCCGGCCTGGACCCTCGGGAATGAATGTTGTACAGGTGGCTGAACTGTATCCA  
GAACTGAGACGCATTTTGACAATTACAGAGGATGGGCAGGGGCTAAAGGGGGTAAAGAGGGAGCGGGGGC  
TTGTGAGGCTACAGAGGAGGCTAGGAATCTAGCTTTTAGCTTAATGACCAGACACCGTCCTGAGTGTATTA  
CTTTTCAACAGATCAAGGATAATTGCGCTAATGAGCTTGATCTGCTGGCGCAGAAGTATTCATAGAGCAG  
CTGACCACTTACTGGCTGCAGCCAGGGGATGATTTTGAGGAGGCTATTAGGGTATATGCAAAGGTGGCACT  
TAGGCCAGATTGCAAGTACAAGATCAGCAAACCTGTAAATATCAGGAATTGTTGCTACATTTCTGGGAACG  
GGGCCGAGGTGGAGATAGATACGGAGGATAGGGTGGCCTTTAGATGTAGCATGATAAATATGTGGCCGGG  
GTGCTTGGCATGGACGGGGTGGTTATTATGAATGTAAGGTTTACTGGCCCCAATTTTAGCGGTACGGTTTT  
CCTGGCCAATACCAACCTTATCCTACACGGTGTAAGCTTCTATGGGTTTAAACAATACCTGTGTGGAAGCCT  
GGACCGATGTAAGGGTTCGGGGCTGTGCCTTTTACTGCTGCTGGAAGGGGGTGGTGTGTGCCCCAAAAGC  
AGGGCTTCAATTAAGAAATGCCTCTTTGAAAGGTGTACCTTGGGTATCCTGTCTGAGGGTAACTCCAGGGT  
GCGCCACAATGTGGCCTCCGACTGTGGTTGCTTCATGCTAGTGAAAAGCGTGGCTGTGATTAAGCATAACA  
TGGTATGTGGCAACTGCGAGGACAGGGCCTCTCAGATGCTGACCTGCTCGGACGGCAACTGTCACCTGCTG  
AAGACCATTACGTAGCCAGCCACTCTCGCAAGGCCTGGCCAGTGTTTGAGCATAACATACTGACCCGCTG  
TTCCTTGCAATTTGGGTAACAGGAGGGGGGTGTTTCTACCTTACCAATGCAATTTGAGTCACACTAAGATAT  
TGCTTGAGCCCGAGAGCATGTCCAAGGTGAACCTGAACGGGGTGTGTTGACATGACCATGAAGATCTGGAAG  
GTGCTGAGGTACGATGAGACCCGACACAGGTGCAGACCCTGCGAGTGTGGCGGTAAACATATTAGGAACCA

Fig. 9 Continued

GCCTGTGATGCTGGATGTGACCGAGGAGCTGAGGCCCGATCACTTGGTGCTGGCCTGCACCCGCGCTGAGT  
TTGGCTCTAGCGATGAAGATACAGATTGAGGTACTGAAATGTGTGGGCGTGGCTTAAGGGTGGGAAAGAAT  
ATATAAGGTGGGGGTCTTATGTAGTTTTTGTATCTGTTTTTGCAGCAGCCGCCGCCGCGCATGAGCACCAACTC  
GTTTGATGGAAGCATTGTGAGCTCATATTTGACAACGCGCATGCCCCCATGGGCCGGGGTGCCTCAGAATG  
TGATGGGCTCCAGCATTGATGGTCGCCCCGTCTGCCCCGAACTCTACTACCTTGACCTACGAGACCGTG  
TCTGGAACGCCGTTGGAGACTGCAGCCTCCGCCGCCGCTTCAGCCGCTGCAGCCACCGCCCGCGGGATTGT  
GACTGACTTTGCTTTCTTGAGCCCGCTTGCAAGCAGTGCAGCTTCCCGTTCATCCGCCCGCGATGACAAGT  
TGACGGCTCTTTTGGCACAATTGGATTCTTTGACCCGGGAACTTAATGTCGTTTTCTCAGCAGCTGTTGGAT  
CTGCGCCAGCAGGTTTTCTGCCCTGAAGGCTTCTTCCCTCCCAATGCGGTTTAAAACATAAATAAAAAACC  
AGACTCTGTTTTGGATTTGGATCAAGCAAGTGTCTTGCTGTCTTTATTTAGGGGTTTTGCGCGCGCGGTAGG  
CCCGGGACCAGCGGTCTCGGTGCTTGAGGGTCTGTGTATTTTTTCCAGGACGTGGTAAAGGTGACTCTGG  
ATGTTTCAGATACATGGGCATAAGCCCGTCTCTGGGGTGGAGGTAGCACCACTGCAGAGCTTCATGCTGCGG  
GGTGGTGTGTAGATGATCCAGTCGTAGCAGGAGCGCTGGGCGTGGTGCCTAAAAATGCTTTTCAGTAGCA  
AGCTGATTGCCAGGGGCAGGCCCTTGGTGTAAGTGTTTACAAAGCGGTTAAGCTGGGATGGGTGCATACGT  
GGGATATGAGATGCATCTTGGACTGTATTTTTAGGTTGGCTATGTTCCCAGCCATATCCCTCCGGGGATT  
CATGTTGTGCAGAACCACCAGCACAGTGTATCCGGTGCACCTGGGAAATTTGTTCATGTAGCTTAGAAGGAA  
ATGCGTGGAAGAACTTGGAGACGCCCTTGTGACCTCCAAGATTTTCCATGCATTCGTCCATAATGATGGCA  
ATGGGCCCACGGGCGGCGGCCCTGGGCGAAGATATTTCTGGGATCACTAACGTCATAGTTGTGTTCCAGGAT  
GAGATCGTCATAGGCCATTTTTACAAAGCGCGGGCGGAGGGTGCCAGACTGCGGTATAATGGTTCCATCCG  
GCCAGGGGCGTAGTTACCCTCACAGATTTGCATTTCCACGCTTTGAGTTCAGATGGGGGGATCATGTCT  
ACCTGCGGGGCGATGAAGAAAACGGTTTCCGGGGTAGGGGAGATCAGCTGGGAAGAAAGCAGGTTCCCTGAG  
CAGCTGCGACTTACCGCAGCCGGTGGGCCCGTAAATCACACCTATTACCGGGTGCAACTGGTAGTTAAGAG  
AGCTGCAGCTGCCGTCATCCCTGAGCAGGGGGGCCACTTCGTTAAGCATGTCCCTGACTCGCATGTTTTCC  
CTGACCAAATCCGCCAGAAGGCGCTCGCCGCCAGCGATAGCAGTTCTTGCAAGGAAGCAAAGTTTTTCAA  
CGTTTTGAGACCGTCCGCCGTAGGCATGCTTTTGAAGCGTTTGACCAAGCAGTTCCAGGCGGTCCACAGCT  
CGGTCACCTGCTCTACGGCATCTCGATCCAGCATATCTCCTCGTTTCGCGGGTGGGGCGGCTTTCGCTGT  
ACGGCAGTAGTCGGTGCTCGTCCAGACGGGCCAGGGTCATGTCTTCCACGGGCGCAGGGTCTCGTCAGC  
GTAGTCTGGGTACGGTGAAGGGGTGCGCTCCGGGCTGCGCGCTGGCCAGGGTGCGCTTGAGGCTGGTCCT  
GCTGGTGCTGAAGCGCTGCCGGTCTTCGCCCTGCGCGCTGGCCAGGTAGCATTTGACCATGGTGTTCATAGT  
CCAGCCCCTCCGCGGCGTGGCCCTTGCGCGCGCAGCTTGCCCTTGAGAGGAGGCGCCGCACGAGGGGCAGTGC  
AGACTTTTGAAGGCGTAGAGCTTGGGCGCGAGAAATACCGATTCCGGGGAGTAGGCATCCGCGCCGCAGGC  
CCCGCAGACGGTCTCGCATTCACAGAGCCAGGTGAGCTCTGGCCGTTCCGGGGTCAAAAACCAGGTTTCCCC  
CATGCTTTTTGATGCGTTTCTTACCTCTGGTTTCCATGAGCCGGTGTCCACGCTCGGTGACGAAAAGGCTG  
TCCGTGTCCCGTATACAGACTTGAGAGGCCTGTCCTCGGCCTGTCTCGACCGATGCCCTTGAGAGCCTT  
CAACCCAGTCAGCTCCTTCCGGTGGGCGCGGGGCATGACTATCGTCGCCGCACCTTATGACTGTCTTCTTTA  
TCATGCAACTCGTAGGACAGGTGCCGGCAGCGCTCTGGGTCATTTTCGGCGAGGACCGCTTTCGCTGGAGC  
GCGACGATGATCGGCCTGTGCTTGCGGTATTCCGAATCTTGACGCCCCTCGCTCAAGCCTTCGTCACTGG  
TCCCGCCACCAAACGTTTCGGCGAGAAGCAGGCCATTATCGCCGGCATGGCGGCCGACGCGCTGGGCTACG  
TCTTGCTGGCGTTCGCGACGCGAGGCTGGATGGCCTTCCCCATTATGATTCTTCTCGCTTCCGGCGGCATC  
GGGATGCCCGCGTTGCAGGCCATGCTGTCCAGGCAGGTAGATGACGACCATCAGGGACAGCTTCAAGGATC  
GCTCGCGGCTCTTACCAGCCTAACTTCGATCACTGGACCGCTGATCGTCACGGCGATTTATGCCGCCTCGG  
CGAGCACATGGAACGGGTTGGCATGGATTGTAGGCGCCGCCCTATACCTTGTCTGCCTCCCCGCGTTGCGT  
CGCGGTGCATGGAGCCGGGCCACCTCGACCTGAATGGAAGCCGGCGGCACCTCGCTAACGGATTACCACT  
CCAAGAATTGGAGCCAATCAATTCTTGCGGAGAACTGTGAATGCGCAAACCAACCCTTGGCAGAACATATC  
CATCGCGTCCGCCATCTCCAGCAGCCGCACGCGGCGCATCTCGGGCAGCGTTGGGTCTGGCCACGGGTGC  
GCATGATCGTGCTCCTGTGCTTGAGGACCCGGCTAGGCTGGCGGGGTTGCCTTACTGGTTAGCAGAATGAA  
TCACCGATACGCGAGCGAACGTGAAGCGACTGCTGCTGCAAAACGTCTGCGACCTGAGCAACAACATGAAT

Fig. 9 Continued

GGTCTTCGGTTTCCGTGTTTCGTAAAGTCTGGAAACGCGGAAGTCAGCGCCCTGCACCATTATGTTCCGGA  
TCTGCATCGCAGGATGCTGCTGGCTACCCTGTGGAACACCTACATCTGTATTAACGAAGCGCTGGCATTGA  
CCCTGAGTGATTTTTCTCTGGTCCCGCCGCATCCATACCGCCAGTTGTTTACCCTCACAAAGTTCCAGTAA  
CCGGGCATGTTTCATCATCAGTAACCCGTATCGTGAGCATCCTCTCTCGTTTTCATCGGTATCATTACCCCCA  
TGAAGAGAAATCCCCCTTACACGGAGGCATCAGTGACCAAACAGGAAAAAACCGCCCTTAACATGGCCCGC  
TTTATCAGAAGCCAGACATTAACGCTTCTGGAGAACTCAACGAGCTGGACGCGGATGAACAGGCAGACAT  
CTGTGAATCGCTTCACGACCACGCTGATGAGCTTTACCGCAGCTGCCTCGCGCGTTTTCGGTGATGACGGTG  
AAAACCTCTGACACATGCAGCTCCCGGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAA  
GCCCCGTAGGGCGCGTCAGCGGGTGTGGCGGGTGTGGGGGCGCAGCCATGACCCAGTCACGTAGCGATAG  
CGGAGTGTATACTGGCTTAACATATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCGGTGTGA  
AATACCGCACAGATGCGTAAGGAGAAAAATACCGCATCAGGCGCTCTTCCGCTTCTCGCTCACTGACTCGC  
TGCGCTCGGTGCTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAA  
TCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGC  
GTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGT  
GGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTT  
CCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGCGCTTTCTCATAGCTC  
ACGCTGTAGGTATCTCAGTTCGGTGTAGGTCTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTC  
AGCCCGACCGCTGCGCCTTATCCGGTAACATCTGCTTGTAGTCCAACCCGGTAAGACACGACTTATCGCCA  
CTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTG  
GTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCG  
GAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAG  
CAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCA  
GTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTACCTAGATCCTTT  
TAAATTAAAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGC  
TTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGT  
GTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCT  
CACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAAGTGGTCTGCAACT  
TTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTTCGCCAGTTAATAGTTT  
GCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGTGTACGCTCGTCTGTTTGGTATGGCTTCATTACGCT  
CCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGT  
CCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCGAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTC  
TCTTACTGTATGCCATCCGTAAGATGCTTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAAT  
AGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAACACGGGATAATACCGCGCCACATAGCAGAACT  
TTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTGAGATC  
CAGTTCGATGTAACCCACTCGTGACCCAACTGATCTTCAGCATCTTTTACTTTTACCAGCGTTTCTGGGT  
GAGCAAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATA  
CTCTTCCTTTTTTCAATATTATTGAAGCATTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATG  
TATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGTCTAAGAAA  
CCATTATTATCATGACATTAACCTATAAAAAATAGGCGTATCACGAGGCCCTTTTCGTCTTCAAGAATTCTCA  
TGTTTGACAGCTTATCATCGATAAGCTTTAATGCGGTAGTTTATCACAGTTAAATTGCTAACGCAGTCAGG  
CACCGTGTATGAAATCTAACAATGCGCTCATCGTCATCCTCGGCACCGTCACCTGGATGCTGTAGGCATA  
GGCTTGGTTATGCCGGTACTGCCGGGCTCTTGCGGGATATCGTCCATTCCGACAGCATCGCCAGTCACTA  
TGGCGTGCTGCTAGCGCTATATGCGTTGATGCAATTTCTATGCGCACCCGTTCTCGGAGCACTGTCCGACC  
GCTTTGGCCGCCGCCAGTCCTGCTCGCTTCGCTACTTGGAGCCACTATCGACTACGCGATCATGGCGACC  
ACACCCGTCTGTGGATCCGGGCCCCCATTTCCCT

Fig. 10

&gt;pSwitch 7323bp

GACGGATCGGGAGATCATTCGAGCTTGCATGCCTGCAGGTCGAAGCGGAGTACTGTCCTCCGAGTTTAAAA  
GCGGAGTACTGTCCTCCGAGGATATCAGCGGAGTACTGTCCTCCGAGTCGCGAAGCGGAGTACTGTCCTCC  
GAGATCGATGTCGACCCCGCCAGCGTCTTGTCAATTGGCGAATTCGAACACGCAGATGCAGTCGGGGCGGC  
GCGGTCCGAGGTCCACTTCGCATATTAAGGTGACGCGTGTGGCCTCGAATCGCCTGGAGACGCCATCCACG  
CTGTTTTGACCTCCATAGAAGACACCGGGACCGATCCAGCCTCCGCGGCCGGAACGGTGCATTGGAACGC  
GGATTCCCCGTGTTAATTAACAGGTAAGTGTCTTCCTCCTGTTTCCTTCCCCTGCTATTCTGCTCAACCTT  
CCTATCAGAACTGCAGTATCTGTATTTTTGCTAGCAGTAATACTAACGGTCTTTTTTTTCTCTTCACAGG  
CCACCAAGCTACCGGTCCACCATGGACTCCCAGCAGCCAGATCTGAAGCTACTGTCTTCTATCGAACAAGC  
ATGCGATATTTGCCGACTTAAAAAGCTCAAGTGCTCCAAAGAAAAACCGAAGTGCGCCAAGTGTCTGAAGA  
ACAACCTGGGAGTGTCGCTACTCTCCCAAACCAAAGGTCTCCGCTGACTAGGGCACATCTGACAGAAGTG  
GAATCAAGGCTAGAAAGACTGGAACAGCTATTTCTACTGATTTTTCTCCTCGAGAAGACCTTGACATGATTTT  
GAAAATGGATTCTTTACAGGATATAAAAGCATTGTTAGAATTCCCGGGTGTGCGACCAGAAAAAGTTCAATA  
AAGTCAGAGTTGTGAGAGCACTGGATGCTGTTGCTCTCCACAGCCAGTGGGCGTTCCAAATGAAAGCCAA  
GCCCTAAGCCAGAGATTCACTTTTTACCAGGTCAAGACATACAGTTGATTCCACCACTGATCAACCTGTT  
AATGAGCATTGAACCAGATGTGATCTATGCAGGACATGACAACACAAAACCTGACACCTCCAGTTCTTTGC  
TGACAAGTCTTAATCAACTAGGCGAGAGGCAACTTCTTTCAGTAGTCAAGTGGTCTAAATCATTGCCAGGT  
TTTCGAACTTACATATTGATGACCAGATAACTCTCATTCAAGTATTCTTGGATGAGCTTAATGGTGTTTGG  
TCTAGGATGGAGATCCTACAAACACGTCAGTGGGCGAGATGCTGTATTTTGCACCTGATCTAATACTAAATG  
AACAGCGGATGAAAGAAATCATCATTCTATTCTATTATGCCTTACCATGTGGCAGATCCACAGGAGTTTGTC  
AAGCTTCAAGTTAGCCAAGAAGAGTTTCTGTATGAAAGTATTGTTACTTCTTAATACAATTCCTTTGGA  
AGGGCTACGAAGTCAAACCCAGTTTGAGGAGATGAGGTCAAGCTACATTAGAGAGCTCATCAAGGCAATTG  
GTTTGAGGCAAAAAGGAGTTGTGTGCGAGCTCACAGCGTTTCTATCAACTTACAAAACCTTCTTGATAACTTG  
CATGATCTTGTCAAACAACCTTCATCTGTACTGCTTGAATACATTTATCCAGTCCCGGGCACTGAGTGTTGA  
ATTTCCAGAAATGATGTCTGAAGTTATTGCTGGGTGCGACGCCCATGGAATTCCAGTACCTGCCAGATACAG  
ACGATCGTCACCGGATTGAGGAGAAACGTAAAAGGACATATGAGACCTTCAAGAGCATCATGAAGAAGAGT  
CCTTTCAGCGGACCCACCGACCCCGGCCTCCACCTCGACGCATTGCTGTGCCTTCCCGCAGCTCAGCTTC  
TGTCCTCAAGCCAGCACCCACGCCCTATCCCTTTACGTCATCCCTGAGCACCATCAACTATGATGAGTTTC  
CCACCATGGTGTTTCTTCTGGGCAGATCAGCCAGGCCTCGGCCTTGGCCCCGGCCCCCTCCCCAAGTCCTG  
CCCCAGGCTCCAGCCCCCTGCCCCCTGCTCCAGCCATGGTATCAGCTCTGGCCCAGGCCCCAGCCCCCTGTCCC  
AGTCCTAGCCCCAGGCCCTCCTCAGGCTGTGGCCCCACCTGCCCCCAAGCCCACCCAGGCTGGGGAAGGAA  
CGCTGTCAGAGGCCCTGCTGCAGCTGCAGTTTGATGATGAAGACCTGGGGGCCTTGGTTGGCAACAGCACA  
GACCCAGCTGTGTTACAGACCTGGCATCCGTCGACAACCTCCGAGTTTCAGCAGCTGCTGAACCAGGGCAT  
ACCTGTGGCCCCCACACAACCTGAGCCCATGCTGATGGAGTACCCTGAGGCTATAACTCGCCTAGTGACAG  
GGGCCCAGAGGCCCCCGACCCAGCTCCTGCTCCACTGGGGGCCCCGGGGCTCCCCAATGGCCTCCTTTCA  
GGAGATGAAGACTTCTCCTCCATTGCGGACATGGACTTCTCAGCCCTGCTGAGTCAGATCAGCTCCTAAGG  
ATCCTCCGGAAGTAGAAAAGCCGAATTCTGCAGGAATTGGGTGGCATCCCTGTGACCCCTCCCCAGTGCCTC  
TCCTGGCCCTGGAAGTTGCCACTCCAGTGCCACCAGCCTTGTCTTAATAAAATTAAGTTGCATCATTTTG  
TCTGACTAGGTGTCTTCTATAATATTATGGGGTGGAGGGGGGTGGTATGGAGCAAGGGGCAAGTTGGGAA  
GACAACCTGTAGGGCTCGAGGGGGGGGCCGAAACCCGCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAG  
CCATCTGTTGTTTGCCCCCTCCCCCGTGCCTTCCTTGACCCTGGAAGGTGCCACTCCCCTGTCCTTTCTTA  
ATAAAATGAGGAAATTGCATCGCATTGTCTGAGTAGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGG  
ACAGCAAGGGGGAGGATTGGGAAGACAATAGCAAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTTCTGA  
GGCGGAAAGAACCAGCTGGGGCTCTAGGGGGTATCCCCACGCGCCCTGTAGCGGCGCATTAAGCGCGGCGG  
GTGTGGTGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTTCGCTTTCTTC  
CCTTCCTTTCTCGCCACGTTTCGCCGGCTTTCCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCCG  
ATTTAGTGCTTTACGGCACCTCGACCCCCAAAAAATTTGATTAGGGTGATGGTTCACGTAGTGGGCCATCGC  
CCTGATAGACGGTTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAACT



Fig. 10 Continued

GGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTTCGGCCTATTG  
GTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTAATTCTGTGGAATGTGTGTCAGTTAGGGTG  
TGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCAGGT  
GTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATA  
GTCCCGCCCCCTAACTCCGCCCCATCCCGCCCCCTAACTCCGCCCCAGTTCCGCCCCATTCTCCGCCCCATGGCTG  
ACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCCTCTGCCTCTGAGCTATTCCAGAAGTAGTGAGGAG  
GCTTTTTTTGGAGGCCTAGGCTTTTGCAAAAAGCTCCCGGGAGCTTGTATATCCATTTTCGGATCTGATCAG  
CACGTGATGAAAAAGCCTGAACTCACCGCGACGTCTGTGCGAGAAGTTTCTGATCGAAAAGTTTCGACAGCGT  
CTCCGACCTGATGCAGCTCTCGGAGGGCGAAGAATCTCGTGCTTTTCAGCTTCGATGTAGGAGGGCGTGGAT  
ATGTCCTGCGGGTAAATAGCTGCGCCGATGGTTTCTACAAAGATCGTTATGTTTATCGGCACTTTGCATCG  
GCCGCGCTCCCGATTCCGGAAGTGCTTGACATTGGGGAATTCAGCGAGAGCCTGACCTATTGCATCTCCCG  
CCGTGCACAGGGTGTACGTTGCAAGACCTGCCTGAAACCGAACTGCCCGCTGTTCTGCAGCCGGTTCGCGG  
AGGCCATGGATGCGATCGCTGCGGCCGATCTTAGCCAGACGAGCGGGTTTCGGCCCCATTTCGGACCGCAAGGA  
ATCGGTCAATACACTACATGGCGTGATTTTCATATGCGCGATTGCTGATCCCCATGTGTATCACTGGCAAAC  
TGTGATGGACGACACCGTCAGTGCGTCCGTGCGCGCAGGCTCTCGATGAGCTGATGCTTTGGGCCGAGGACT  
GCCCCGAAGTCCGGCACCTCGTGCACGCGGATTTCCGGCTCCAACAATGTCCTGACGGACAATGGCCGCATA  
ACAGCGGTCAATTGACTGGAGCGAGGCGATGTTCCGGGGATTCCCAATACGAGGTGCGCAACATCTTCTTCTG  
GAGGCCGTGGTTGGCTTGTATGGAGCAGCAGACGCGCTACTTCGAGCGGAGGCATCCGGAGCTTGCAGGAT  
CGCCGCGGCTCCGGGCGTATATGCTCCGCATTGGTCTTGACCAACTCTATCAGAGCTTGGTTGACGGCAAT  
TTCGATGATGCAGCTTGGGCGCAGGGTCGATGCGACGCAATCGTCCGATCCGGAGCCGGGACTGTCGGGCG  
TACACAAATCGCCCCGAGAAGCGCGGCCGTCTGGACCGATGGCTGTGTAGAAGTACTCGCCGATAGTGGA  
ACCGACGCCCCAGCACTCGTCCGAGGGCAAAGGAATAGCACGTGCTACGAGATTTTCGATTCCACCGCCGCC  
TTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGGCTGGATGATCCTCCAGCGCGGGGATCT  
CATGCTGGAGTTCTTCGCCCACCCCAACTTGTTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCA  
TCACAAATTTACAAATAAAGCATTTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTA  
TCTTATCATGTCTGTATACCGTCGACCTCTAGCTAGAGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGT  
GTGAAATTGTTATCCGCTCACAATTCCACACAACATAACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTG  
CCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCGCTTTCCAGTCGGGAAACCTGTGCG  
TGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCGTATTGGGCGCTCTTCCGCTTC  
CTCGCTCACTGACTCGCTGCGCTCGGTGCTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAA  
TACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGG  
AACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCG  
ACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCC  
TCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTG  
GCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGT  
GCACGAACCCCCGTTTCAGCCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAA  
GACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCT  
ACAGAGTTCCTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCT  
GAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTG  
GTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCT  
ACGGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGAA  
CTTCACCTAGATCCTTTTAAATTAAAAATGAAGTTTTAATCCAATCTAAAGTATATATGAGTAAACTTGGT  
CTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTT  
GCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGAT  
ACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCA  
GAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGT  
TCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGG



Fig. 10 Continued

TATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAG  
CGGTTAGCTCCTTCGGTCCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATG  
GCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAAC  
CAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCG  
CGCCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACCTCTCAAGGATC  
TTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTACTTT  
CACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAATAAGGGCGACACGGA  
AATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGC  
GGATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCGCGGCACATTTCCCCGAAAAGTGCC  
ACCTGACGTC